



UNITED STATES PATENT AND TRADEMARK OFFICE

W.A
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/806,744 | 03/23/2004 | Jens-Peter Redlich | 03033 | 2547 |

7590 12/28/2007
NEC Laboratories America, Inc.
4 Independence Way
Princeton, NJ 08540

| |
|----------|
| EXAMINER |
|----------|

RUSSELL, WANDA Z

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2616

| | |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

12/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | |
|------------------------------|------------------|----------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/806,744 | REDLICH ET AL. |
| | Examiner | Art Unit |
| | Wanda Z. Russell | 2616 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 31 October 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-40 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott et al. (Pub No. US 2004/0022237 A1), in view of Bartholomew et al. (U.S. Patent 5,661,782).

3. For claim 1, Elliott et al. substantially teach a method (Abstract, line 1) of operating an access device (108-Fig. 1, and [0029], lines 1-2) comprising:

receiving (provide for transmission of both voice and data traffic through the data network, [0029], lines 8-9) a packet ([0030], line 3) at an access device deployed in a first network (from 122 to 108-Fig. 1);

automatically identifying ([0036], line 3) a switch server (terminating device, [0036], line 4, and terminating soft switch, [0749], line 5, 104-Fig. 1) in a second network (104-Fig. 1), where the switch server is associated with an identifier obtained from the packet ([0036], lines 3-4); and

forwarding (route, [0030], line 3) the packet to the switch server in the second network.

However, Elliott et al. fail to specifically teach that the switch server can release the packet in the second network without releasing the packet in the first network.

Art Unit: 2616

Bartholomew et al. teach that the switch server can release the packet in the second network without releasing the packet in the first network (from Fig. 1, and col. 13, line 64 & lines 63-65, it can be seen that calls (packets) are delivered to the second end office (second/local network) from the remote/first end office (network) are released in the second end office once user answers. It is not released in the first network.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Elliott et al. with Bartholomew et al. to obtain the invention as specified, for better traffic management.

For claim 2, Elliott et al. and Bartholomew et al. teach everything claimed as applied above (see claim 1). In addition, Elliott et al. teach the method of claim 1 wherein the packet is a layer two frame ([1061], lines 3-4, and [0018], line 2).

For claim 3, Elliott et al. and Bartholomew et al. teach everything claimed as applied above (see claims 1 and 2). In addition, Elliott et al. teach the method of claim 2 wherein the packet is received from a user device with layer two connectivity with the access device ([1061], lines 1-4).

For claim 4, Elliott et al. and Bartholomew et al. teach everything claimed as applied above (see claims 1, 2, and 3). In addition, Elliott et al. teach the method of claim 3 where the first network is a remote network (Fig. 1) and the second network is a home network (Fig. 1) for a user of the user device.

For claim 5, Elliott et al. and Bartholomew et al. teach everything claimed as applied above (see claims 1, 2, and 3). In addition, Elliott et al. teach the method of

claim 3 wherein the identifier comprises a media access control ([0018], lines 1-3) address associated with the user device.

For claim 6, Elliott et al. and Bartholomew et al. teach everything claimed as applied above (see claims 1, 2, and 3). In addition, Elliott et al. teach the method of claim 3 wherein the identifier comprises a media access control ([0018], lines 1-3) address associated with the user device and a cryptographic key identifier ([1526], lines 2-3).

For claim 7, Elliott et al. and Bartholomew et al. teach everything claimed as applied above (see claims 1, 2, and 3). In addition, Elliott et al. teach the method of claim 3 wherein the identifier comprises a network layer address (IP address, Table 6).

For claim 8, Elliott et al. and Bartholomew et al. teach everything claimed as applied above (see claim 1). In addition, Elliott et al. teach the method of claim 1 wherein the packet is forwarded using a communication channel ([0029], line 3) established across a public data network between the access device in the first network and the switch server in the second network.

For claim 9, Elliott et al. and Bartholomew et al. teach everything claimed as applied above (see claims 1, and 8). In addition, Elliott et al. teach the method of claim 8 where communication channels are established between the access device in the first network and a plurality of switch servers in different networks dynamically based on which users have established connectivity with the access device (Fig. 1).

For claim 10, Elliott et al. and Bartholomew et al. teach everything claimed as applied above (see claims 1, and 8). In addition, Elliott et al. teach the method of claim 8

where communication channels are dynamically established between access devices and switch servers which have no prior knowledge of each other (Fig. 1).

For claim 11, Elliott et al. and Bartholomew et al. teach everything claimed as applied above (see claims 1, 2, 3, and 4). In addition, Elliott et al. teach the method of claim 4 in which the user device connects in a same manner as it connects to the home network ([0635], lines 4-5).

For claim 12, Elliott et al. and Bartholomew et al. teach everything claimed as applied above (see claims 1, 2, 3, and 4). In addition, Elliott et al. teach the method of claim 4 where the remote network does not need to allocate an IP address for the user device (trunking gateway allocates internal resources, [0756], lines 1-5. It can be seen that this is done at the soft switch side – home network, not remote network, by applicant's definition).

For claim 13, Elliott et al. and Bartholomew et al. teach everything claimed as applied above (see claims 1, 2, 3, and 4). In addition, Elliott et al. teach the method of claim 4 where the remote network is not involved in performing user authentication and access control ([1814], Soft switch to set up a connection for the purpose of authenticating calling party. It can be seen that this is done at the soft switch side – home network, not remote network, by applicant's definition).

For claim 14, Elliott et al. and Bartholomew et al. teach everything claimed as applied above (see claim 1). In addition, Elliott et al. teach the method of claim 1 wherein the switch server is identified by performing a lookup request using the identifier obtained from the packet ([0494], line 1).

For claim 15, Elliott et al. substantially teach a system (Abstract, line 1) for remote access to a home network from a remote network (Fig. 1), comprising:

one or more switch servers (104, 106 -Fig. 1), each switch server deployed in a home network (first network, from 122 to 108-Fig. 1) associated with one or more users (102, 122 –Fig. 1); and

an access device (108-Fig. 1, and [0029], lines 1-2) for deployment in a remote network (second network, 104-Fig. 1) and providing connectivity for user devices, such that packets arriving at the access device from a user are forwarded (route, [0030], line 3) to the switch server (104-Fig. 1).

However, Elliott et al. fail to specifically teach that the switch server can release the packet in the second network without releasing the packet in the first network.

Bartholomew et al. teach that the switch server can release the packet in the second network without releasing the packet in the first network (from Fig. 1, and col. 13, line 64 & lines 63-65, it can be seen that calls (packets) are delivered to the second end office (second/local network) from the remote/first end office (network) are released in the second end office once user answers. It is not released in the first network.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Elliott et al. with Bartholomew et al. to obtain the invention as specified, for better traffic management.

For claim 16, it is a system claim corresponding to method claim 2, therefore it is rejected for the same reason above.

For claim 17, it is a system claim corresponding to method claim 9, therefore it is rejected for the same reason above.

For claim 18, it is a system claim corresponding to method claim 1, therefore it is rejected for the same reason above.

For claim 19, it is a system claim corresponding to method claim 11, therefore it is rejected for the same reason above.

For claim 20, Elliott et al. substantially teach an access device (108-Fig. 1, and [0029], lines 1-2) comprising:

a network interface ([0469], lines 1-2) for establishing connectivity with one or more user devices;

a packet analysis module capable of obtaining an identifier ([0036], line 3) from a packet received from the network interface and identifying ([0036], line 4) a switch server in a second network associated with the identifier; and

means (router, [0030], line 3) for dynamically establishing a communication channel with one or more switch servers so that a packet associated with a switch server can be forwarded to the switch server.

However, Elliott et al. fail to specifically teach that the switch server can release the packet in the second network without releasing the packet in the first network.

Bartholomew et al. teach that the switch server can release the packet in the second network without releasing the packet in the first network (from Fig. 1, and col. 13, line 64 & lines 63-65, it can be seen that calls (packets) are delivered to the second

end office (second/local network) from the remote/first end office (network) are released in the second end office once user answers. It is not released in the first network.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Elliott et al. with Bartholomew et al. to obtain the invention as specified, for better traffic management.

For claim 21, it is a system claim corresponding to method claim 2, therefore it is rejected for the same reason above.

For claim 22, it is a system claim corresponding to method claim 11, therefore it is rejected for the same reason above.

For claim 23, Elliott et al. teach the access device of claim 20 where the network interface provides wired connectivity with the user devices (Fig. 1).

For claim 24, Elliott et al. teach the access device of claim 20 where the network interface provides wireless connectivity with the user devices (claim 5).

For claim 25, Elliott et al. teach the access device of claim 20 where traffic from the user devices are not bridged with any nodes in the local network (Fig. 1).

For claim 26, Elliott et al. substantially teach a switch server (104-Fig. 1) comprising:

a network interface (SS7 gateway—Fig. 5A) for connecting to a home network of a user; and

an access module (TG-Fig. 5A) configured to capable of maintaining communication channels with one or more access devices (108-Fig. 1) over a remote network, and receive packets from an access device on behalf of a user device.

Art Unit: 2616

However, Elliott et al. fail to specifically teach that the packets received from the remote network are not released in the remote network.

Bartholomew et al. teach that the packets received from the remote network are not released in the remote network (from Fig. 1, and col. 13, line 64 & lines 63-65, it can be seen that calls (packets) are delivered to the second end office (second/local network) from the remote/first end office (network) are released in the second end office once user answers. It is not released in the first network.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Elliott et al. with Bartholomew et al. to obtain the invention as specified, for better traffic management.

For claim 27, it is a system claim corresponding to method claim 2, therefore it is rejected for the same reason above.

For claim 28, Elliott et al. teach the switch server of claim 26 wherein the switch server is responsible for local access policy enforcement ([0714], 2nd line form the end).

For claim 29, Elliott et al. teach the switch server of claim 26 further comprising a decryption module for decrypting packets from the access device ([1061], line 9).

For claim 30, Elliott et al. teach the switch server of claim 26 further comprising a lookup module that responds to lookup requests from access devices ([0494], line 1).

For claims 31-39, and 40, they are device-readable medium claims corresponding to method claims 1-9 and 14 respectively, therefore they are rejected for the same reason above.

Response to Amendment

Art Unit: 2616

4. Applicant's amendment filed October 31, 2007 has been received and considered.

Response to Arguments

5. Applicant's arguments filed October 31, 2007 have been considered but are moot in view of the new ground(s) of rejection.
6. Applicant argues that Elliot is not directed to a virtual network that permits a user to freely access a private network from a public network.

In response, the Examiner respectfully disagrees.

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). There is no place in the claims describing a virtual network.

7. Applicant argues that Elliott fails to disclose or suggest forwarding the packet to the switch server in the second network so that the switch server can release the packet in the second network without releasing the packet in the first network.

In response, the Examiner respectfully disagrees.

A patent by Bartholomew et al. (U.S. Patent 5,661,782) teach this element. From Fig. 1, and col. 13, line 64 & lines 63-65, it can be seen that calls (packets) are delivered to the second end office (second/local network) from the remote/first end office (network) are released in the second end office once user answers. It is not released in the first network.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wanda Z. Russell whose telephone number is (571) 270-1796. The examiner can normally be reached on Monday-Thursday 9:00-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WZR *WZR*

Seema S. Rao
SEEMA S. RAO 12/26/07
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2630